

Applicant : Lorin R. DeBonte et al.
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Attorney's Docket No.: 07148-063003 / CGL99/0007US11

Amendments to the Claims:

No claims were amended herein. A list of claims and their status is provided below.

Listing of Claims:

1. (Previously presented) An isolated nucleic acid comprising a full length delta-12 fatty acid desaturase coding sequence having at least one mutation in a region of said sequence encoding a His-Xaa-Xaa-Xaa-His amino acid motif, wherein said at least one mutation renders the product of said desaturase gene non-functional and wherein said sequence includes said at least one mutation.
2. (Previously presented) The nucleic acid of claim 1, wherein said at least one mutation comprises a mutation in a region of said sequence encoding a His-Glu-Cys-Gly-His (SEQ ID NO:60) amino acid motif.
3. (Previously presented) The nucleic acid fragment of claim 2, wherein said at least one mutation in said sequence introduces a non-conservative amino acid substitution in said motif.
- 4.-46. (Cancelled)
47. (Previously presented) The nucleic acid of claim 1, wherein said at least one mutation in said sequence introduces a deletion of one or more amino acids in said motif.
48. (Previously presented) The nucleic acid of claim 47, wherein said at least one mutation in said sequence introduces a deletion of one amino acid in said motif.
49. (Previously presented) The nucleic acid of claim 1, wherein said at least one mutation in said sequence introduces an insertion of one or more amino acids in said motif.

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50. (Previously presented) The nucleic acid of claim 49, wherein said at least one mutation in said sequence introduces an insertion of one amino acid in said motif.

51. (Previously presented) The nucleic acid of claim 3, wherein said at least one mutation in said motif comprises a substitution of a codon encoding Lys for the codon encoding Glu.

52. (Previously presented) The nucleic acid of claim 51, wherein said coding sequence encodes a polypeptide having the amino acid sequence of SEQ ID NO:12.

53. (Previously presented) The nucleic acid of claim 52, wherein said sequence is SEQ ID NO:11.

54. (Previously presented) The nucleic acid of claim 3, wherein said sequence encodes a microsomal gene product.